In the Claims:

Please amend the claims as follows.

1. (currently amended) A method for equalizing heat distribution across a catalyst in a tube reactor comprising loading ~~each~~ a tube ~~of the tube reactor~~ with ~~one or more~~ a catalytic monolith~~s~~ to thereby provide said tube reactor; wherein said catalytic monolith is a ceramic monolith support impregnated with a catalytically reactive metal; wherein said catalytically reactive metal is selected from the group consisting of nickel, cobalt, and molybdenum; and wherein said catalytic monolith defines a flow path oriented so as to direct heat towards a center of said tube.

Claims 2-4 (canceled).

5. (currently amended) A method ~~according to claim 2~~ for equalizing heat distribution across a catalyst in a tube reactor comprising loading a tube with a catalytic monolith~~s~~ to thereby provide said tube reactor; wherein said catalytic monolith is a ceramic monolith support impregnated with a catalytically reactive metal; wherein said catalytically reactive metal is silver~~; wherein said catalytic monolith is useful in the vapor phase production of epoxides;~~ and wherein said catalytic monolith defines a flow path~~s in the catalytic monoliths are~~ oriented so as to direct heat way from a center of ~~each~~ said tube.

6. (new) A process for the production of styrene by the dehydrogenation of ethylbenzene, said process comprises:

providing a tube;

providing a tube reactor by loading into said tube a catalytic monolith having a center and channels molded therein for directing a feed therethrough so as to direct the flow of heat toward said center of said catalytic monolith;

introducing said feed into said tube reactor operated under dehydrogenation conditions; and

yielding a dehydrogenation product.

7. (new) A process as recited in claim 6, wherein said catalytic monolith comprises iron oxide useful in the catalytic dehydrogenation of ethylbenzene to styrene.

8. (new) A process as recited in claim 7, wherein said catalytic monolith has a length and a shape that approximates the shape of said tube.

9. (new) A process as recited in claim 8, wherein said tube has an inner diameter and said catalytic monolith further has a diameter just smaller than said inner diameter of said tube.

10. (new) A method, comprising:

providing a tube having a tube shape and a tube center; and

providing a tube reactor by loading into said tube a catalytic monolith having a shape which approximates said tube shape and having channels molded therein for directing fluid flow therethrough such that heat is directed toward said tube center to thereby equalize the temperature profile across said tube when operating said tube reactor as an endothermic reactor system.

11. (new) A method as recited in claim 10, wherein said channels of said catalytic monolith are impregnated with a catalytically reactive metal so as to make said channels effective as a catalyst.

12. (new) A method as recited in claim 11, wherein said catalytically reactive metal is selected from the group consisting of nickel, cobalt, molybdenum and silver.

13. (new) A method as recited in claim 12, wherein said catalytically reactive metal is silver.

14. (new) A method as recited in claim 10, wherein said catalytically reactive metal is nickel.

15. (new) A method as recited in claim 10, wherein said catalytically reactive metal is cobalt.

16. (new) A method as recited in claim 10, wherein said catalytically reactive metal is molybdenum.

17. (new) A method, comprising:

providing a tube having a tube shape, a tube center, and a tube inner diameter; and

providing a tube reactor by loading into said tube a catalytic monolith having a shape which approximates said tube shape and having channels molded therein for directing fluid flow therethrough such that heat is directed toward said tube inner diameter from said tube center to thereby equalize the temperature profile across said tube when operating said tube reactor as an exothermic reactor system.

18. (new) A method as recited in claim 17, wherein said channels of said catalytic monolith are impregnated with a catalytically reactive metal so as to make said channels effective as a catalyst.

19. (new) A method as recited in claim 18, wherein said catalytically reactive metal is selected from the group consisting of nickel, cobalt, molybdenum and silver.

20. (new) A method as recited in claim 19, wherein said catalytically reactive metal is silver.

21. (new) A method as recited in claim 17, wherein said catalytically reactive metal is nickel.

22. (new) A method as recited in claim 17, wherein said catalytically reactive metal is cobalt.

23. (new) A method as recited in claim 17, wherein said catalytically reactive metal is molybdenum.